What is claimed is:

1. A seismic signaling apparatus, comprising:

a support frame;

an air-gun array operably mounted to the support frame such that a tapered, heavy centered, point source seismic signal is generated upon firing the air-gun array; and

at least one shock absorbing member attached to a pair of adjacent air-guns in the air-gun array that is operable to absorb a force generated upon firing the air-gun array.

2. The seismic signaling apparatus as recited in claim 1 wherein the air-gun array further comprises air-guns in two parallel vertical planes and wherein the at least one shock absorbing member further comprises shock absorbing members attached to respective pairs of adjacent air-guns in the two parallel vertical planes.

3. The seismic signaling apparatus as recited in claim 1 wherein the air-gun array further comprises air-guns in two parallel horizontal planes and wherein the at least one shock absorbing member further comprises shock absorbing members attached to respective pairs of adjacent air-guns in the two parallel horizontal planes.

4. The seismic signaling apparatus as recited in claim 1 wherein the air-gun array further comprises air-guns in two parallel vertical planes and air-guns in two parallel horizontal planes and wherein the at least one shock absorbing member further comprises shock absorbing members attached to respective pairs of adjacent air-guns in the two parallel vertical planes and respective pairs of adjacent air-guns in the two parallel horizontal planes.

5. The seismic signaling apparatus as recited in claim 1 wherein the at least one shock absorbing member further comprises a spring-loaded shock mount.

6. The seismic signaling apparatus as recited in claim 5 wherein the spring-loaded shock mount further comprises a spring coupled between a pair of latches.

7. The seismic signaling apparatus as recited in claim 5 wherein the spring-loaded shock mount further comprises a spring formed from a stainless steel.

8. The seismic signaling apparatus as recited in claim 5 wherein the spring-loaded shock mount further comprises a latch formed from a corrosion-resistant alloy.

9. The seismic signaling apparatus as recited in claim 1 wherein the support frame is configured for towing in the water behind a marine vessel.

10. The seismic signaling apparatus as recited in claim 1 wherein the support frame is configured for static deployment in the water.

11. A seismic signaling apparatus, comprising:

a support frame;

an air-gun array operably mounted to the support frame such that a tapered, heavy centered, point source seismic signal is generated upon firing the air-gun array; and

a global positioning system receiver coupled to the support frame, the global positioning system receiver operable to communicate with a global positioning system in order to determine the location of the seismic signaling apparatus.

12. The seismic signaling apparatus as recited in claim 11 wherein the air-gun array has a 2x4x2 configuration.

13. The seismic signaling apparatus as recited in claim 11 wherein the support frame is configured for towing in the water behind a marine vessel.

14. The seismic signaling apparatus as recited in claim 11 wherein the support frame is configured for static deployment in the water.

15. A seismic signaling apparatus, comprising:

a support frame;

an air-gun array operably mounted to the support frame such that a tapered, heavy centered, point source seismic signal is generated upon firing the air-gun array, the air-gun array having air-guns in two parallel vertical planes and air-guns in two parallel horizontal planes;

substantially horizontal shock absorbing members attached to respective pairs of adjacent air-guns in the two parallel vertical planes that are operable to minimize horizontal air-gun movement generated upon firing the air-gun array; and

substantially vertical shock absorbing members attached to respective pairs of adjacent air-guns in the two parallel horizontal planes that are operable to minimize vertical air-gun movement generated upon firing the air-gun array.

16. The seismic signaling apparatus as recited in claim 15 wherein the shock absorbing members further comprise spring-loaded shock mounts.

17. The seismic signaling apparatus as recited in claim 16 wherein the spring-loaded shock mounts further comprise springs coupled between a pair of latches.

18. The seismic signaling apparatus as recited in claim 16 wherein the spring-loaded shock mounts further comprise spring formed from a stainless steel.

19. The seismic signaling apparatus as recited in claim 16 wherein the spring-loaded shock mounts further comprise latches formed from a corrosion-resistant alloy.

20. The seismic signaling apparatus as recited in claim 15 wherein the support frame is configured for towing in the water behind a marine vessel.

21. The seismic signaling apparatus as recited in claim 15 wherein the support frame is configured for static deployment in the water.

22. The seismic signaling apparatus as recited in claim 15 further comprising a global positioning system receiver coupled to the support frame that is operable to communicate with a global positioning system in order to determine the location of the seismic signaling apparatus.

23. A method for enhancing the signal repeatability of a seismic signaling apparatus comprising the steps of:

deploying the seismic signaling apparatus in the water, the seismic signaling apparatus including an air-gun array operably mounted to the support frame;

firing the air-guns in the air-gun array to producing a tapered, heavy centered, point source seismic signal; and

absorbing a force between at least two of the air-guns in the air-gun array generated upon firing the air-gun array with a shock absorbing member attached to the at least two of the air-guns.

24. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises minimizing vertical air-gun movement generated upon firing the air-gun array.

25. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises minimizing horizontal air-gun movement generated upon firing the air-gun array.

26. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises minimizing vertical air-gun movement generated upon firing the air-gun array and minimizing horizontal air-gun movement generated upon firing the air-gun array.

27. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises maintaining the air-guns in the air-gun array in a substantially fixed positioned during the firing step.

28. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises stabilizing the air-guns in the air-gun array during the firing step.

29. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises absorbing a force between pairs of adjacent air-guns in two parallel vertical planes of air-guns in the air-gun array.

30. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises absorbing a force between pairs of adjacent air-guns in two parallel horizontal planes of air-guns in the air-gun array.

31. The method as recited in claim 23 wherein the step of deploying the seismic signaling apparatus in the water further comprises towing the seismic signaling apparatus behind a marine vessel.

32. The method as recited in claim 23 wherein the step of deploying the seismic signaling apparatus in the water further comprises statically deploying the seismic signaling apparatus in the water.

33. The method as recited in claim 23 further comprising the step of determining the location of the seismic signaling apparatus with a global positioning receiver coupled to the seismic signaling apparatus.